# Elster Meridian Solutions for Utilities and Commercial & Industrial Metering

*The Meridian System offers utilities and commercial and industrial plant managers the ability to monitor energy usage and provides the analysis tools needed to better manage their business and power costs. Meridian can read, store and process meter information for your local facility or for a group of plants around the country or around the world, helping to increase your competitive advantage.*



## Energy Information is the Key

With power costs often comprising a major part of plant expenses, timely  information on energy usage is essential to lowering costs and improving efficiency. With Meridian, key decisions can be made based on access to actual and historical energy consumption, interval data and time-of-use metering information. Meridian offers the ability to view and interpret meter data in many useful ways, including tabular and graphical formats. This information enables users to modify processes, avoiding demand peaks and reducing overall power costs. Information is easily accessible using a Microsoft® Internet Explorer™ browser.

## Read it – See it – Change it – Remotely

Meridian bridges the gap between utilities and commercial or industrial customers.  The system provides an integrated metering solution by combining state-of-the-art communications for meter data acquisition, a powerful metering database and flexible meter data analysis tools, all operating on a standard Microsoft Windows Server 2003™ platform. The Meridian platform allows utilities to read meters and provide data services, or commercial and industrial customers to directly install their own measurement systems.

This combination of timely and accurate remote meter reading and innovative software analysis tools gives users the information needed to make informed decisions, whether they are buying or selling power or analyzing plant efficiency.

## Internet Accessibility

Elster takes meter data analysis a step further using Internet accessibility. Meridian analysis reports are HTML compatible, making the system accessible from PCs equipped with Microsoft Internet Explorer. Multi-level security allows multiple users to access their data separately without compromising other data sets.

## Built for Scalability

Meridian allows users to purchase remote metering and data analysis capability for systems ranging from a few dozen meters to thousands of meters.  Users can start small and grow their system as needed, adding additional capabilities when required.

## Share the Data

Meridian system data can be shared, allowing local plant systems to read and store their own data and send key metering information to a central headquarter's system for consolidation and analysis. Power contracts can be negotiated based on total company needs, power bills monitored and plant or line efficiencies compared.

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# Elster Meridian System

*Take advantage of today's latest technologies in meters and metering communications to get the energy information and services you need to better manage your business or facility.*

## Benefits for Commercial and Industrial Facilities

- *Better manage energy costs*
- *Monitor and reduce costly demand peaks*
- *Perform facility-to-facility comparisons*
- *Sub-meter within a plant or building to allow consumption comparisons for Cost Centre Analysis*
- *Compare energy providers and tariffs*
- *Trend and analyze energy usage*
- *Aggregate bills or purchases*
- *Estimate bills and budgets*

## Benefits for Utilities

- *Read meters remotely*
- *Provide value-added services for customers*
- *Improve customer service and retain your most valued customers*
- *Provide centralized meter data management services*
- *Optimize rates and tariffs through rate marketing*
- *Help customers optimize their consumption*
- *Remotely distribute energy information to customers or internal users*

**Remote Meter Reading –** Read and store consumption or interval data via fixed telephone or mobile cellular wireless networks as often as you need — hourly, daily, weekly, or monthly. Communications costs can be reduced by utilizing local RS-485 or 20 mA current loop buses to read multiple meters over a single modem line. Meridian can support up to 32 ports per computer for simultaneous remote meter reading.

**Data Storage –** Consumption and interval data is stored in a relational database that enables you to analyze a year or more of data per meter or for groups of meters. Multiple channels of data from each meter can be stored to allow analysis of real power versus reactive power, net power transactions and bi-directional energy flow.

**Data Access and Presentation –** Reports can be transmitted to users or viewed over intranet connections. Meter data can be viewed in either tabular displays or graphical formats like line or bar charts for any viewing period. One can easily copy and paste data into Microsoft Excel spreadsheets or other Microsoft applications.

**Load Profile Analysis –** Multiple meter interval data channels can be totalled using mathematical operators and functions. Load profile data from multiple meters can be totalled, total load based on individual feeders can be viewed, or net power flows at specific network nodes can be calculated for received and delivered real and reactive energy.
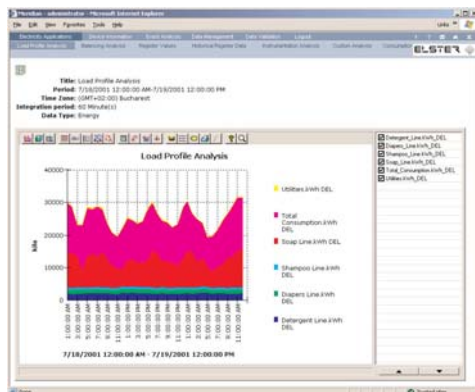


**Instrumentation Analysis –** Analyze the quality of the energy using instrumentation values measured by Elster meters. Instantaneous instrumentation values are acquired at the instant of acquisition and stored for viewing and trending. Instrumentation profile data can also be analyzed. Operators can view system frequency, power factor, current, voltage, and power (active, reactive, or apparent), based on total or per phase measurements.
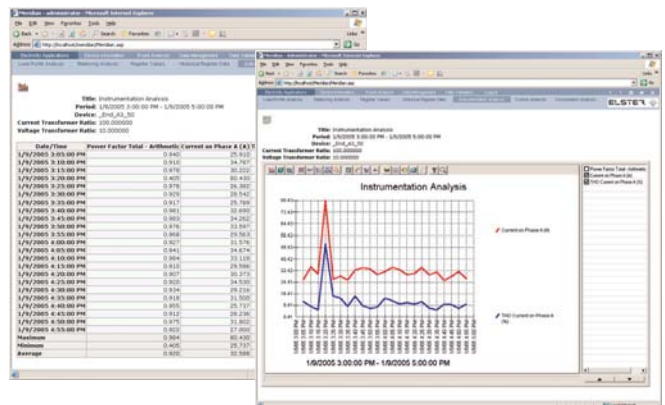


**Power Quality Analysis and Event Monitoring –** Unlock the power of Elster ALPHA® meters. Meridian allows you to access and view instrumentation readings like per phase volts and amperes, view harmonics and much more. You can also log and view power quality events like outages and under- or over-voltage conditions.

**Tariff Analysis –** A rate engine allows users to replicate many common tariffs, allowing the operator to analyze them using meter interval data. Users can calculate the bill items, estimate the bill and compare the effects of different tariffs based on existing meter data sets. Utility marketing departments or commercial customers can use this feature to compare costs of various rates using actual meter data.

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